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ABSTRACT

THIS HANDBOOK, DESIGNED AS A GUIDE FOR NEW EVALUATORS IN THE PITTSBURGH PUBLIC SCHOOLS, PROVIDES AN ORIENTATION TO THE "DISCREPANCY EVALUATION MODEL" AND A DETAILED OUTLINE OF THE ADMINISTRATIVE PROCEDURES NECESSARY TO CONDUCT DAY-TO-DAY ACTIVITIES IN THE FIRST TWO STAGES OF PROGRAM EVALUATION. GUIDELINES FOR USE DURING THE FIRST STAGE OF EVALUATION STRESS THE NEED FOR COORDINATION BETWEEN THE EVALUATOR AND THE PROGRAM STAFF WHILE PLANNING, GENERATING, AND AMENDING THE PROGRAM EVALUATION DESIGN. STAGE II GUIDELINES SPECIFY REQUIREMENTS FOR IMPLEMENTING THE EVALUATION DESIGN DEVELOPED IN STAGE I. THE APPENDIX INCLUDES SUMMARIES OF COMPLETED EVALUATIONS OF THE PITTSBURGH KINDERGARTEN PROGRAM. FIGURES 1 AND 4 MAY BE OF POOR QUALITY WHEN REPRODUCED DUE TO FINE PRINT. (JH)

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HANDBOOK FOR EVALUATORS

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PREFACE

This handbook has been prepared to guide evaluators in the Office of Research of the Pittsburgh Public Schools in the systematic planning of their activities under the Discrepancy Evaluation Model.[1]

As the first of two volumes, the handbook has two principal objectives: first, to orient the new evaluator to the philosophy of evaluation inherent in the discrepancy model; and second, to outline in detail the often routine administrative processes necessary to conduct day to day activities in the first two stages of evaluation.

The handbook necessarily makes repeated references to specific regulations, documents, and procedures of the Pittsburgh Public Schools. Nevertheless, it has been written so that it can be easily adapted to any school system which subscribes to the concept of evaluation set forth in the discrepancy model. For it is the model's underlying logic, applicable to educational programs in general, that has led to the detailed evaluation procedure and duties described in the present volume.

Leonard E. Glassner
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1. Discrepancy Evaluation Model, 1969 (Pittsburgh Public Schools, 1969).

Section I

ORIENTATION

A. BECOME FAMILIAR WITH THE ORGANIZATION OF THE SCHOOL SYSTEM

A minimal working knowledge of the Pittsburgh Public Schools as an urban school system is a prerequisite for the evaluator before he associates himself with any specific program. He can obtain this basic information from several sources.

Legal regulations and official policy are detailed in the Rules of the Board of Public Education of the School District of Pittsburgh, to which revisions are made as changes of policy occur. This publication contains a simplified organization chart of the school system.

Three quasi-official manuals which contain useful information are the Handbook of Personnel Procedures, Handbook for Teachers, and Handbook for Principals. Although out of print and somewhat outdated, a booklet entitled Your First Year in the Pittsburgh Public Schools has many useful observations about staff functions and duties and contains insights into interpersonal relationships within the system. A copy of each of these publications is available in the Office of Research library.

As part of the orientation program for new evaluators, staff members of the Office of Research will provide additional material related to the evaluation effort. These staff members are a continuing source of informal background information, and should be consulted whenever the

evaluator feels that their experience will be helpful in clarifying specific problems.

B. - BECOME FAMILIAR WITH EVALUATION RATIONALE AND PROCEDURES

The evaluator must be able to explain the overall rationale and general procedures for evaluation in the Pittsburgh Public Schools before accepting responsibility for any program. Reading the Discrepancy Evaluation Model, 1969 and participating in an orientation workshop on evaluation are necessary first steps in acquiring this ability. Each of these activities is discussed below.

1. READ DISCREPANCY MODEL

The Discrepancy Evaluation Model is the basic document for understanding the theory and procedures of evaluation research in the Pittsburgh Public Schools. The theory assumes that the continuous reporting of observed differences between a program staff's expectations for a program and the field reality will lead decision makers to effect desirable changes. This reporting follows well-defined stages which include development of a precise program design by staff at all levels, "careful study . . . of their program operations, a detailed analysis of program inputs and processes, and the verfication that programs are in fact operating as people believe them to be operating."

The above quotation is from the Discrepancy Evaluation Model which details the prescribed procedures for carrying a program through

the several stages of evaluation. The evaluator will need to read this document thoroughly before participating in the orientation workshop. Throughout this manual, specific references will be made to the Discrepancy Evaluation Model and subsidiary publications.

2. PARTICIPATE IN EVALUATION IN-SERVICE WORKSHOP

Whenever a new group of evaluators joins the staff, the Coordinator of Evaluation will conduct an orientation workshop. This workshop is designed to provide a comprehensive introduction to evaluation philosophy and technique. Before the workshop is convened, the new evaluator will have learned about the basic organization and operation of the Pittsburgh Public Schools and will have read the Discrepancy Evaluation Model. He will then be able to participate in the practicum of evaluation activity described below.

When an evaluator is employed at a time when no formal workshop is imminent, the Coordinator of Evaluation will arrange an informal orientation for him, covering the same subjects considered in the workshop.

a. EVALUATION TECHNIQUE

The first part of the orientation workshop will acquaint the evaluator with general techniques and procedures for implementing the model. Although each workshop will have its own specific agenda, the evaluator will take part in such typical activities as those described below.

b. VIEW FILM, "DISCREPANCY EVALUATION MODEL"

This 25-minute sound film illustrates through animation and documentary techniques how the discrepancy model guides educational and evaluative staffs in designing and monitoring programs. Considerable attention is given to the design as the standard for comparison in measuring a program's effectiveness. The film specifically considers the stages and cycles through which a developing program progresses. It shows how frequent feedback can produce improvement in instructional and service-oriented programs. The interaction between evaluators and program staff throughout the life of a program is emphasized.

c. GENERATE A SAMPLE PROGRAM DESIGN

A major activity in the workshop will be the construction of a design for a specific program according to model specifications. A frequently used technique is to provide the evaluator with an early description of a program obtained before the model was developed. After identifying gaps in the description, he can proceed to build an improved design. A logical follow-up is participation in a mock panel meeting convened to judge the adequacy of the design. The most recent official design of the program can serve as a standard against which the evaluator can judge his own proficiency as a program designer.

d. PLAN STRATEGY AND PROCEDURE FOR DESIGN MEETING OF SAMPLE PROGRAM

It is imperative that careful planning precede the design meeting, since its product will be the standard by which the program is continually evaluated. The first set of plans concerns the routine administrative details. These require painstaking attention in order to assure the smooth functioning of the meeting. The purely clerical and logistical matters will be handled by the secretarial staff and the administrative assistant on instructions from the evaluator. The content of the meeting itself, however, is the complete responsibility of the evaluator. Such items as the following must typically be considered in planning a design meeting:

1. Selecting an appropriate date for the meeting
2. Reserving an adequate meeting place
3. Determining and notifying the participants of the meeting
4. Structuring the discussion groups
5. Arranging for substitute teachers, if necessary
6. Preparing the questions for the discussion groups from which content for the program design will be obtained
7. Selecting and briefing discussion leaders
8. Arranging for recording the proceedings of the meeting.

e. PREPARE SAMPLE FLOWCHART OF PROGRAM PROCESS

The ability to construct a flowchart of the program process is a valuable skill. It enables the evaluator to see both the relationship of major (terminal) and enabling objectives for a program and the sequence of activities and procedures by which the objectives are realized. The standardized symbols and procedures for flowcharting are presented in "Flowcharting Techniques," a pamphlet published by the IBM Corporation, and available from the librarian. A less formal approach will be found in the annual report for 1968 of the Standard Speech Development Program. The evaluator may wish to experiment with other variations of flowcharting techniques for his sample flowchart.

f. DESIGN SAMPLE STAGE II INSTRUMENT

There are few standardized instruments for collecting the kinds of data required in Stage II evaluation. Therefore, most such instruments will need to be locally constructed. By examining the instrument file in the evaluation office and referring to past reports of specific programs, the evaluator will find many examples of questionnaires, interview schedules, and other instruments suitable for Stage II monitoring. It should be noted that a rationale must be provided for every instrument and section thereof. The Coordinator of Evaluation and a consultant, if necessary, will assist the evaluator in instrument design. Nevertheless, as part of the orientation workshop, the evaluator should try his hand at

designing a sample instrument to measure some aspect of program operation. He will also prepare a rationale along the lines of those he has examined to accompany the instrument.

g. WRITE SAMPLE CYCLE REPORT

The preceding workshop activities have been designed to prepare the evaluator for the writing of a cycle report. With this background, he should begin the present assignment by examining the latest design of the program he intends to work with in this exercise. He should then read the most recent cycle report for the program and note its findings. This will lead him to the next step--the determination of the probable sources of discrepancy between design and implementations for investigation in the forthcoming cycle of evaluation. He can then prepare a series of questions designed to elicit the information he needs for his cycle report. The findings related in the sample cycle report will necessarily be fictional. At the same time, they should be consistent with actual program operation, and should include plausible alternative courses of action.

3. RECEIVE HUMAN RELATIONS TRAINING

At this point it will be clear that the evaluator must control many technical skills as he carries out his duties. No matter how great his technical proficiency, however, without the ability to interact effectively with people at all levels of program responsibility, he will fail at his task. By its very nature, the Discrepancy Evaluation Model often requires

the reporting of negative findings. If program staffs lack confidence in the evaluator or feel threatened by evaluation activities, they are unlikely to take remedial action to improve their programs. For this reason, the second part of the orientation workshop will be devoted to interpersonal relationships. The three objectives for this aspect of the workshop are:

1. To enable the evaluator to identify the circumstances when interaction with program staff is necessary or advisable

2. To provide the evaluator with the human relations techniques suitable for working with program staff at several levels under various conditions

3. To equip the evaluator with the skills needed to assess his own sensitivity in dealing with others

During the orientation, realization of these objectives will be approached through role playing, T-grouping, or other methods of sensitivity training, as well as through selected reading. Directly following the orientation period, new evaluators will observe their experienced colleagues in a variety of situations.

Section II

STAGE I EVALUATION

A. PLANNING EVALUATION ACTIVITY

The first section of this category is developed in two parts. This division reflects the fact that a beginning evaluator will proceed in a somewhat different way when he accepts responsibility for a new program than he will when he accepts responsibility for a program that has been in operation for some time.

1. ACCEPT RESPONSIBILITY FOR EVALUATION OF NEW PROGRAM

The first task for an evaluator of a program not yet in operation is to become thoroughly familiar with its initial planning. The Coordinator of Evaluation will brief the evaluator on the conditions that led administrators to propose the program.

Where a formal proposal has been submitted, as in the case of federally and state funded programs, a rationale will usually be stated in general terms. In addition, the proposal will provide some clues as to overall objectives, target populations, and process variables that decision makers had in mind when they conceived the program. The formal proposal will also provide some indication of contemplated evaluation activity. In ideal situations, the evaluator will participate in formulating the evaluation section of the proposal. It should be remembered,

however, that in most cases significant departures must be made from the original specifications of the proposal to meet changing needs and the reality of actual installation.

Where a formal proposal is not available, the Coordinator of Evaluation will direct the evaluator to the best sources for obtaining the preliminary information described above.

a. READ RELEVANT LITERATURE

The rationale for any justifiable educational program rests on theoretical assumptions with which the evaluator should become conversant. The Office of Research maintains a library to aid the evaluator in familiarizing himself with the literature relevant to his specific program. It subscribes to many periodicals in various disciplines and purchases books covering a wide range of topics. It regularly receives reports and abstracts of evaluation and research being done in other organizations. The librarian is the custodian for these resources.

In his reading the evaluator will often find reports of programs similar to the one for which he is responsible. He may find that certain evaluation aspects of a program in another city are generalizable to his own. Familiarity with the relevant literature can alert the evaluator to pitfalls he should avoid in his own work, and can also save considerable time by suggesting suitable instruments and procedures for data collection. He should not overlook the fact that knowledge of the literature is also a

great asset in communicating with program staff as he seeks to gain their confidence.

b. ESTABLISH THE PROGRAM FILE

The master files for all programs in the Office of Research are systematically organized and maintained by the librarian. The evaluator should make sure, however, that the librarian is aware of any new program so that proper files may be established. These files should contain the basic documents and correspondence pertaining to each program from its conception to its termination. The evaluator is free to borrow any materials from the files in accordance with established procedures, and will be held responsible for their security while they are in his possession. As a program develops, the evaluator will provide the librarian with all important records for cataloguing and filing. This includes tapes of meetings as well as written records.

It is a good idea for the evaluator to keep his own files to document the progress of each of his programs. Besides copies of official documents and letters, including memoranda, these files will ordinarily contain excerpts of appropriate literature and notes of meetings and other contacts with program staff. This is not to say that the evaluator should try to have a duplicate of everything in the master program file, nor that his own files should not be periodically culled.

c. PREPARE CYCLE PLAN FOR OBTAINING INITIAL PROGRAM DESIGN.

The evaluator will remember the emphasis placed upon the design meeting during the orientation sessions. Following the procedures outlined in section d on page 5, he should prepare a cycle plan and accompanying timeline for holding a design meeting for his new program. The plan in draft form will be submitted to the Coordinator of Evaluation for approval and possible revision. Certain items may need to be discussed with the program manager before the plan is put into final form.

d. MAKE INITIAL CONTACT WITH PROGRAM MANAGER

The initial contact between the program manager and the evaluator can be made as soon as the Coordinator of Evaluation has approved the tentative plan for the program design meeting. This contact serves two purposes: First, it provides an excellent opportunity for the Coordinator of Evaluation to introduce the evaluator to the program manager and set the stage for a productive relationship. Second, it enables the program manager and the evaluator to work together on a crucial activity, each within his own sphere of responsibility, early in a program's history.

(1) DISCUSS OVERALL EVALUATION PROCEDURE WITH PROGRAM MANAGER

It is imperative that the program manager accept the evaluator as a knowledgeable and influential professional with a legitimate interest

in the program. At this first meeting, the evaluator should create the impression that he will serve as an objective monitor and reporter of program developments in the context of the discrepancy model. It should be made clear at this meeting that the evaluator is not a source for program content which remains the responsibility of the program staff.

Before discussing the specifics of the design meeting, the key provisions and philosophy of program evaluation under the discrepancy model should be presented. Among the items to be mentioned are the stages of evaluation, feedback procedures, and the necessity for periodic data collection.

(2) DISCUSS PLANS TO OBTAIN INITIAL PROGRAM DESIGN

Once he understands the function of the program design, the program manager can offer valuable help in setting up the proposed design meeting. He should be invited to suggest alternate meeting dates and sites and the names of personnel not included in the original list of participants. Although the specific questions which the evaluator has drawn up for generating the design will not be mentioned at this preliminary meeting, the evaluator can legitimately ask the program manager to suggest several topics that might properly be brought up in the discussion groups. Those topics that will lead to a more precise design can be phrased as questions and considered in the design meeting.

e. MAKE SPECIFIC PLANS TO OBTAIN FIRST PROGRAM DESIGN

In preparing for the design meeting the evaluator should be guided by the information contained in section d on page 5 above (PLAN STRATEGY AND PROCEDURE FOR DESIGN MEETING OF SAMPLE PROGRAM). If it is possible, the Coordinator of Evaluation will arrange for the evaluator to observe the planning activities for a design meeting of another program as well as the meeting itself. He should also participate in the evaluation staff's critique of the meeting in order to acquire additional insights into the rationale and strategy of the design meeting and to benefit from suggestions for continuous improvement of the process of obtaining a program design.

(1) PREPARE QUESTIONS FOR DISCUSSION LEADERS

The basic structure for the design meeting is a series of questions relating to the input, process, and output variables of a particular program. Each of these categories can be subdivided into sections appropriate for the program being designed. Figure 3 of the Discrepancy Evaluation Model (p. 17) contains the general areas in the three basic categories which should be used to generate the questions concerning the specific variables of a program. Each question should be worded so that it will elicit the most precise answer possible. Where feasible, a question should seek to determine the exact standard which the program staff considers a measurement of attainment for a given variable.

To obtain a reasonably complete design, a fairly large number of questions will have to be asked at the design meeting. Each question should serve to produce a particular segment of the total program design. This is true of the questions suggested by the program manager as well as those proposed by the evaluator and other members of the evaluation staff. A careful study should be made of questions used in other design meetings. Within the guidelines described above, the evaluator has considerable latitude in the framing of questions for his own design meeting.

(2) BRIEF DISCUSSION LEADERS

Ordinarily, the evaluator plays a rather inactive role at the design meeting for his program. This frees him to observe any aspect of the meeting at any time and enables him to make a better judgment of the overall activity than would be possible if he were responsible for a definite assignment.

The person in charge of each discussion group is the discussion leader, who is usually an evaluator of another program or some other member of the evaluation staff.

A thorough briefing of the discussion leaders by the evaluator will help assure a successful design meeting. At the briefing session the evaluator should provide the following:

(1) Enough background information about the program to provide an adequate frame of reference for guiding the discussion groups

(2) An explanation of the strategy and procedures for the meetings, including provisions for recording the proceedings

(3) A description of the composition of the discussion groups and identification of key program personnel

(4) An examination of the purpose of each question to be asked and suggestions for ways of obtaining the information desired

(5) A discussion of the role of the discussion leader, including ways of obtaining assistance from the evaluator if he is needed during the meeting.

The importance of holding the discussion groups to consideration of the predetermined questions should be emphasized at the briefing session. Discussion leaders should be cautioned about departing from these questions for any extended period, since experience has shown that time does not permit digression at the design meeting. The importance of pacing should also be discussed, and a suggested time schedule be agreed upon.

Often valuable suggestions from experienced discussion leaders at the briefing session can help improve the conducting of the design meeting. Nevertheless, all decisions concerning the meeting rest with the program evaluator, subject to the approval of the Coordinator of Evaluation.

2. EVALUATION OF AN ONGOING PROGRAM

Whenever a new evaluator is assigned to an ongoing program, it is highly desirable that he become promptly identified with it in the minds

of program staff. It is also essential that the momentum of evaluation be maintained during the transition period between evaluators. To these ends, the Coordinator of Evaluation will acquaint the evaluator with the history of the program and will outline the projected strategy and time-line for evaluation for at least the next several months.

a. CONFER WITH PREVIOUS EVALUATOR OF THE PROGRAM

An informal meeting with the previous evaluator of the program should be arranged if he is available. In many ways, he is the person best able to bring about a smooth transition in the evaluation of the program. He can, for instance, alert the new evaluator to the most effective ways of interacting with program personnel at several levels of responsibility.

If the previous evaluator is a current employee of the Office of Research, the Coordinator of Evaluation may decide to have him work with his successor on a part-time basis during a brief break-in period. This time can be spent examing the files, planning forthcoming activities, and meeting jointly with the program manager, with the new evaluator gradually taking over the reigns from his predecessor.

b. BECOME FAMILIAR WITH PROGRAM FILES

As previously stated, the librarian maintains a file of evaluation and related activities for all ongoing programs. The new evaluator should

read these files carefully, take notes, and discuss them with the previous evaluator as appropriate.

As pointed out in section b, page 11, the previous evaluator will probably have his own confidential files for the program. These may contain memoranda and notes to supplement the official formal files. At his discretion they may be made available to the new evaluator, who can generally gain much useful information from them.

The new evaluator will, of course, assume the responsibility for keeping the official program files current. He is encouraged to set up his own informal program file to suit his own needs. His attention is again called to section b above.

c. READ RELEVANT LITERATURE AND CONTINUE FILE OF PERTINENT INFORMATION

As he reads the files for his program, the new evaluator will likely discover references to a body of literature concerning his program. This should be skimmed and he should form the habit of keeping abreast of new books, articles, and reports that pertain to the program. Attention is called to section a, page 10, for further observations on this subject.

d. PREPARE CYCLE PLAN AND TIMELINE FOR STAGE I ACTIVITY

It is possible that the new evaluator's ongoing program will not yet have achieved a stabilized design when he assumes responsibility for it.

This will mean that further Stage I activity is indicated. In this case, the evaluator should prepare a cycle plan and timeline which will center on improving the program design. It will pay to examine the existing design quite critically. If a panel has met to judge the adequacy of the desigh, its observations and recommendations should also be closely studied. This research will identify the type of Stage I activity that is needed, and the point at which it should proceed.

In the event that additional Stage I work is not required or not justified at this time, the proper point for evaluation of the program should be determined, and the evaluator should proceed as specified for that stage in the discrepancy model.

e. MAKE INITIAL CONTACT WITH PROGRAM MANAGER

Except for a slight difference in emphasis stemming from the program manager's experience with the evaluation of the program, the purposes and procedures for meeting the program manager are the same as described in section d, page 12. The initial contact should be made as soon as the decision concerning the next cycle of the program's evaluation has been confirmed.

(1) DISCUSS OVERALL EVALUATION PROCEDURE WITH PROGRAM MANAGER

The approach used at the initial meeting between the new evaluator and the program manager of an ongoing program is essentially the same as it is for any new pro, ram, (See section(1), page 12.) The Coordinator

of Evaluation and the previous evaluator, if available, are in the best position to know which points need to be reinforced and which ideas can safely be taken for granted at this first meeting. The new evaluator should be guided by their advice concerning these matters and the extent to which he should participate in the meeting.

(2) ARRANGE WITH PROGRAM MANAGER TO CONTINUE WITH CURRENT CYCLE OF STAGE I EVALUATION IF REQUIRED

During the first meeting between evaluator and program manager, an agreement will ordinarily be reached to continue with Stage I evaluation if such activity is desirable. The evaluator will then proceed as the logic of the situation requires in accordance with the basic plan of the Discrepancy Evaluation Model.

B. GENERATING THE PROGRAM DESIGN

1. HOLD DESIGN MEETING

On the day before the design meeting, the evaluator should make a final check to see that all routine details, from identification badges to the arrangement of furniture, are in order.

A typical program design meeting lasts several hours. It begins with all participants assembling in a large group, where they are welcomed by a high-ranking member of the program staff. The Director of Research then offers a brief explanation of the purpose and rationale for the program design meeting. The Coordinator of Evaluation

introduces the program evaluator. Discussion leaders are identified, and participants are directed to their assigned groups. These introductory activities should take no longer than fifteen or twenty minutes.

The heart of the design meeting is the actual deliberation of the discussion groups. Here the careful planning will be evident in the animated and productive proceedings conducted under the unobtrusive control of well-prepared discussion leaders. In each group, a qualified recorder will be noting in detail all answers to the discussion leader's questions. The record of each discussion group will be given to the evaluator at the end of the meeting.

A good way to close the program design meeting is to have the participants reassemble in a large group for five to ten minutes. The Coordinator of Evaluation will thank the program staff for its contributions and discuss the general plans for disseminating the design which the discussion groups have generated. These closing minutes offer an excellent opportunity to reinforce the idea that the evaluation staff exists to perform an important but non-threatening role in producing effective programs in the Pittsburgh Public Schools.

2. EVALUATE DESIGN MEETING

The program design meeting as it is presently perceived has evolved largely through the candid evaluation of previous meetings. The evaluation session should follow shortly after the design meeting while details

and impressions are fresh in the participant's minds. All professional members of the evaluation staff who participated in the design meeting should attend the session. It is quite likely that the discussion at any follow-up meeting will produce several valuable suggestions for modifications in the basic procedures for obtaining a program design.

3. CONSTRUCT THE PROGRAM DESIGN

The records of the proceedings of each discussion group contain the content for the program design. It is the evaluator's task to extract the areas of consensus from these records for each program variable and to fit them into the design format reproduced in Figure 3 on page 17 of the Discrepancy Evaluation Model. Outcomes should be phrased in behavioral terms where possible.

Where the records fail to indicate consensus, the evaluator must be careful not to force a spurious agreement. The wiser course is to list the variables about which consensus is lacking. Those considered to be clearly routine may be resolved by a conference with the program manager. Those which are essential to the program's input or operation, or which are crucial to realization of the stated outcomes should be listed as sources of discrepancy in the preliminary design. A decision concerning them can then be made by the panel which will be convened to judge the adequacy of the program's design.

4. SUBMIT DRAFT OF PROGRAM DESIGN FOR APPROVAL AND EDITING

When the draft of the program design is finished, it should be presented to the Coordinator of Evaluation for revision or approval. It will then go to the editor for final processing and duplication. The evaluator and the editor will meet informally whenever necessary during the editing process to discuss matters relating to the final form of the program design.

5. DISTRIBUTE THE PROGRAM DESIGN

Prompt feedback to program staff at all levels is a cardinal feature of evaluation under the discrepancy model. Therefore, as soon as the program design has been cleared for publication, it should be duplicated in sufficient quantity for distribution to the program staff. The distribution list should be decided in conference with the Coordinator of Evaluation. It will be remembered that all participants at the design meeting were promised punctual feedback. The best feedback stemming from a design meeting is the program design itself. Since the design will probably need revision, however, the evaluator should prepare a covering letter, to be signed by the Coordinator of Evaluation or the Director of Research, which clearly indicates the interim nature of the document.

C. AMENDING THE PROGRAM DESIGN

1. GENERAL PURPOSE AND DESCRIPTION OF THE PANEL MEETING

Once a program design has been obtained, questions concerning its adequacy arise. These questions must be answered before the design can stand as an acceptable standard of measurement. Specifically, the design will be judged with respect to its comprehensiveness, its external validity, and its internal consistency. Comprehensiveness refers to the completeness of the design--Is the definition of the program precise in all its elements, or are there significant gaps that need to be filled in or criteria that need to be specified? External validity concerns the basic compatibility of a program with the total operation of the school or other educational agency in which it functions. It is also concerned with the program's degree of harmony with the philosophy and objectives of the school system. Internal consistency (or internal validity) relates to whether a program is consistent with itself--Are its component parts consonant with one another, and do they all contribute to the realization of the stated outcomes?

Judgments concerning these three major areas will be made by a panel which will examine the program design item by item. The typical panel is made up of the program's director and an assistant, the Coordinator of Evaluation and the evaluator, and a neutral consultant with expert qualifications in the discipline to which the program relates. The Coordinator of Evaluation (or in his absence the program evaluator) will

preside at the panel meeting. It is his task, where possible, to lead the panel to ratify each item in the design, either as it stands or as discussion and argument cause it to be amended. It must be emphasized that this task does not permit the evaluation staff to determine the content of the design or to force consensus where none exists. Unresolved issues remaining after the panel meeting should be identified as such and earmarked for reconsideration and possible modification at a later date. It should be obvious, of course, that serious design conflicts are likely sources of malfunctions in program operation.

2. OBTAIN FIELD DATA TO TEST PROGRAM COMPATIBILITY OF ONGOING PROGRAM

Despite the inadvisability of installing a program before it has been adequately designed, practical necessities often cause such action to be taken. In these cases, the evaluator can readily obtain compatibility data by field observation prior to the panel meeting. These data should be collected and analyzed in time to be reported when the panel considers the question of compatibility. In collecting the data, the evaluator should follow the steps outlined below.

a. DETERMINE METHOD OF DATA COLLECTION

The type and method of data collection for compatibility testing depend upon the available time, sample size, program complexity, and practical matters such as the time of the school year, administrative

directives, and staff availability. Thus, the type and method of data collection need to be determined by the evaluator and Coordinator of Evaluation with these and other appropriate factors in mind. The two most common approaches are the field interview and the questionnaire response, each of which requires a custom-made instrument to fit the program being studied.

b. DESIGN INSTRUMENT FOR COMPATIBILITY DATA COLLECTION

The general instrument file as well as the files for specific programs contain examples of instruments used in compatibility testing. Often one of these can be adapted to fit the needs of another program. Each question or other item in the instrument should be justified by a written rationale. Although the number of questions asked, the phrasing of the items, and their arrangement will vary with the program, answers to such compatibility questions as the following can be obtained either through interviews or questionnaires:

1. What do participants give up in order to take part in this program?
2. What arrangements, if any, are made for participants to make up the work they miss in order to take part in the program?
3. What do teachers or other staff give up in order to make this program possible?
4. Does this program infringe on any other program in any way? If so, which program(s), and in what way(s)?

5. How does this program help the school improve its total responsibility to the student and community?

6. What effect has this program had to date on the attitudes of participants and staff?

After the instrument has been designed, edited, and approved, it will be given to the administrative assistant for duplication in the required quantity. As with all other instruments, copies will be placed in the files.

Under ideal conditions, every instrument should be tested and revised as necessary before it is used to collect data for analysis. It is realized that this may not always be possible in the case of compatibility instruments because of time constraints, but it should be done whenever it is feasible.

c. TRAIN INTERVIEWERS

If data are to be obtained through interviews, it will be necessary to train the interviewers in appropriate techniques. This will include the psychological aspects of interviewing as well as the conditions peculiar to a given program that may alter the interviewer's approach. Care must be taken to assure that all interviewers will follow the same general procedures, and guidelines should be drawn up to encompass permissable variations. An attempt should be made to establish interrater reliability among interviewers. A practical discussion of interviewing is found on

pages 23-47 of Evaluation Models and Manual: Title III ESEA Educational Programs (New Jersey Department of Public Instruction), a copy of which is in the library.

d. CONDUCT FIELD TESTING OF PROGRAM COMPATIBILITY

The administrative assistant will arrange for collecting data as soon as strategy and procedures have been approved. Prior approval is a prerequisite to any data collection in the Pittsburgh Public Schools. It is essential that appointments be kept as made and necessary modifications be arranged well in advance, so as not to interrupt school operations. A source of conflict between school or administrative staff and the evaluation office concerning data collection should be referred immediately to the Coordinator of Evaluation or the Director of Research, who should also be notified when emergencies arise. The evaluator will discover that close attention to established routines for data collection will facilitate his task and create a good working relationship between field personnel and the evaluation staff for his own and other programs.

It is a good idea to keep a running tabulation of day-to-day findings when collecting field data and to compare notes regularly with interviewers. Experiences in the field, especially in the early days of the data collection, may lead to desirable procedural changes and instrument modification.

3. ANALYZE FIELD DATA AND RECORD FINDINGS

When compatibility testing has been completed, the results will be analyzed to establish findings and reach general conclusions. The nature of the analysis supports the purpose of the compatibility testing, which is to discover whether the program has an overall external consistency in the opinion of those who are most intimately concerned with it. Results for each item or question should be reported separately, with specific statistics available in case they are requested at the panel meeting.

4. PLAN PANEL MEETING TO ASSESS PROGRAM DESIGN

Plans for the panel meeting to judge the program design may be formulated before compatibility testing has been completed. The rules for planning the design meeting as discussed in section d, page 5, generally apply, except that the procedure is simplified because of the smaller size of the group. Specific tasks are outlined below.

a. IDENTIFY CONSULTANT

The consultant is a key member of the panel convened to assess the program design. He is a high-status figure, chosen both for his insight into the theory underlying the program and his competence to evaluate its educational application. His qualifications must be acceptable to program and evaluation staff alike if his recommendations are to be taken seriously. Since he will have no vested interest in the program, he can act as an objective appraiser of the program design. Often he will be

employed at a local university or research organization. The Director of Research, the Coordinator of Evaluation, and in some cases the program manager will help identify the consultant. Approval rests with the Director of Research. Contractual arrangements are handled by the Coordinator of Operations.

b. ORIENT CONSULTANT TO PROGRAM

As soon as a consultant has been engaged, the evaluator will arrange to meet with him to provide necessary background information about the program he will be asked to judge. At this meeting special emphasis should be given to the consultant's role at the panel meeting. At this time he should be given a copy of the design and other pertinent documents. A brief interpretation of the discrepancy evaluation rationale will also be in order.

c. ACCOMPANY CONSULTANT ON FIELD OBSERVATION

The consultant should be given the opportunity to make an on-site observation of the program. This will provide him with a sharper frame of reference in which to make his judgments. It may be possible for the evaluator to combine the consultant's visit with a compatibility interview.

5. HOLD PANEL MEETING

The personnel and characteristics of a program will influence the style of the panel meeting, but its general purpose is the same for all programs. A full treatment of the panel meeting will be found on

pages 18-23 of the Discrepancy Evaluation Model. This document also summarizes the activity of an actual panel meeting as part of the case history of the Standard Speech Development Program (pages 51-52). Listening to the tapes of previous panel proceedings will alert the evaluator to the interaction, pacing, and overall "feel" of a panel meeting.

a. ASSESS EACH ELEMENT OF THE PROGRAM DESIGN

In his opening remarks, the Coordinator of Evaluation will introduce the members of the panel, state their qualifications, and describe the purpose and procedures of the meeting. He will then direct the panel to the program design which will be discussed item by item. A stenographer will record the proceedings. Experience has shown that panel members readily accept the taping of the entire proceedings. This tape will prove invaluable in preparing the report of the panel meeting. It can serve as an unbiased source for refreshing memories of program and evaluation staff about the decisions which were reached for amending the design.

b. REPORT COMPATIBILITY FINDINGS

Early in the meeting, the evaluator will report the findings obtained from the analysis of compatibility testing in the field. He should describe the method used to gather data, state the questions asked, and summarize the answers. He should be prepared to report specific totals and percentages if requested, but since an overall impression of program compatibility is the purpose of his report, his remarks should be general. He

should conclude his report by indicating areas of consensus and disagreement on the program's compatibility as seen in the field. During the remainder of the meeting, he will answer questions and offer feedback concerning evaluation of the program and otherwise contribute to the discussion as circumstances suggest.

6. PREPARE RECORD OF PANEL PROCEEDINGS

The record of panel proceedings reproduces the original program design and adds all recommended modifications in their proper sequence. An example of a record of panel proceedings appears as Appendix B of the Discrepancy Evaluation Model.

a. DISCUSS RECORD OF PANEL PROCEEDINGS WITH PROGRAM MANAGER

After the record of panel proceedings has been edited but before its final publication, the evaluator should discuss it with the program manager. Minor changes in emphasis or interpretation may legitimately result from this conference, but all of these should be supported by the record. A copy of the completed record of panel proceedings should be given to the program manager, but it is not ordinarily distributed to the entire program staff.

7. WRITE AMENDED PROGRAM DESIGN

The evaluator will now prepare a revised program design, incorporating the changes recommended by the panel. Although the written

transcription and the tape of the entire proceedings should provide an accurate record of the modifications suggested, the evaluator is free to request clarification on any point from any participant at the meeting.

The revised design will be distributed to all people associated with the program. It may well become the subject of a cycle report and should be included in all major evaluation documents of the program.

8. USE AMENDED DESIGN FOR STAGE II EVALUATION

The program is now ready for Stage II evaluation which seeks to compare design with actual operation. The strategy of using program staff in design activity and the concept of continuous feedback are implicit in the above material. The revised design should therefore be a clearly visible standard for further evaluation of the program.

Section III

STAGE II EVALUATION

A. PLAN STAGE II EVALUATION

Stage II evaluation can begin as soon as the first amended design has been distributed to the program staff. Even though the design may require further work, it is usually possible and desirable to measure some aspects of the program's operation. The standard for comparing administrative expectation with field reality is the amended design which incorporates the modifications approved at the panel meeting.

Stage II evaluation can never be a haphazard exercise. It must examine systematically and thoroughly the degree to which the separate elements defined in the design are being put into practice. There are several sources to which the evaluator can turn in determining which Stage II variables to include in a cycle of evaluation:

1. The input and process variables as they appear in the design (These should be randomly sampled.)
2. The areas of most frequent or most serious disagreement as stated by field staff at the design meeting or in compatibility testing
3. Items recorded in a problems inventory obtained at the close of the design meeting
4. Elements in the design which may have been identified for further clarification at the panel meeting

Two or more of these sources can be combined in preparing the list of variables for Stage II observation. It is also possible to include questions pertaining to other stages of evaluation in a cycle plan, since a program is rarely confined to a single stage of development at any given time.

1. PREPARE CHART OF CYCLE PLAN

Plans for an evaluation cycle can be charted as shown in Figure 1. In preparing this chart, the evaluator will simultaneously organize his thinking and illuminate his specific tasks in planning and conducting his observations. Together with the accompanying timeline discussed below, the chart will constitute a concise record of related evaluation activities. The events listed in Figure 1 are merely a sample of the many variables that might be tested in a single cycle. Complete charts for cycles of various programs are found in the files.

2. PREPARE TIMELINE FOR CYCLE PLAN

Figure 2 shows a typical timeline to accompany the chart of the cycle plan. In setting it up, the evaluator should keep in mind the importance of timely feedback to program staff. He should consult the librarian for appropriate literature on PERT charting or other systems of network management. These techniques can be a valuable aid in constructing a realistic chronology. If applied to cycle planning, they will increase the

likelihood of the smooth progression of evaluation commitments and enable the evaluator to meet projected deadlines.

3. DESIGN NECESSARY INSTRUMENTS

The evaluator should refer to section f, page 6, above for a discussion of Stage II instrumentation. The ideal instrument will be as brief and straightforward as possible. It will seek to collect only such data as are needed to fulfill the intent of the cycle plan. It will permit observers to record information with minimum interference in program activities. It will be amenable to high inter-rater reliability and will have low risk of inaccurate interpretation. If data processing is indicated, it will be compatible with computer requirements. Finally, it will be constructed so that the data it yields can readily be subjected to appropriate statistical procedures.

In aiming for the ideal Stage II instrument, the evaluator will confer with various staff members of the Office of Research, whose skills are at his disposal. The Coordinator of Evaluation will arrange for consultant services when necessary. The evaluator should allow sufficient time for instrument design so that it does not cause delay in conducting field observations.

4. FIELD TEST INSTRUMENTS AND TRAIN RATERS

A field test of the instrument should be conducted in order to determine its general suitability and to identify any areas or items in need of

clarification. Extensive field testing is usually not required. It should terminate as soon as the evaluator is satisfied that raters and respondents are able to cope with the instrument, and that it is supplying the kinds of data it was intended to produce. When the field testing is completed, necessary revisions in the instrument should be made immediately so that actual data collection can begin. If major changes are called for, or if a completely new instrument is required, the design and field testing procedures described above will have to be repeated.

The evaluator will formulate a set of precise directions for administering his instrument. The directions should be clearly worded in non-technical language. Sample responses should be included where necessary. Specific instructions concerning timing, environmental conditions, methods of recording responses, and other administrative considerations should be included in the directions where appropriate. Figure 3 and 4 reproduce samples of a Stage II instrument and the directions for administering it.

The Coordinator of Evaluation will advise the evaluator where the field testing of the instrument will be administered. The administrative assistant will set up and confirm the testing schedule. Preceding this, it will be necessary to assign and train raters if the evaluator will not be collecting the data or if he will need assistance. The training process

should continue into the instrument testing period so that raters and evaluator can improve data collection procedures together in the light of conditions they encounter in the field.

FIGURE 1
CYCLE PLAN FORMAT

TRANSITION ROOM PROGRAM CYCLE PLAN Evaluator_____ Date_____

Stage	Design Dimension	Questions	Rationale	Data Source	Instrumentation	Analysis	Feedback
II	INPUT CRITERIA Preconditions (Student conditions)	What criteria were used to select: (1) Grade 3 students? (2) Grade 4 students?	(1 and 2)The panel raised several questions about these sections of the definitions Also, the problems inventory recorded many discrepancies in these areas.	Examination of school records and interviews with teachers and principals	Locally devised data collection form and interview schedule	Frequency distribution and percentages	Final report at end of Cycle II
		If students from any other grades are included in individual schools what criteria are used to select those students?	It is congruent with program's guidelines to include other grades It is important to find the extent of discrepancy in order to decide whether present recommendations are realistic.	As above	As above	As above	As above
II	INPUT CRITERIA Staff qualifications	Do teachers have the professional qualifications specified in the program definition?	One of the program's basic assumptions is that teachers will have specific training in remedial reading techniques. There are implications here for in-service training needs.	Classroom teachers	Revised version of questionnaire used in 1966-1967	Comparison study of teacher preparation, using data collected in 1966-1967 and 1967-1968	Formal written report at end of Cycle II
II	PROCESS (Student activities)	To what extent are students working independently, and what kinds of independent activities are they engaged in?	The ability to read independently is an ultimate program objective. Its realization depends on opportunities for supervised independent activities while students are in the transition room. (Cf."Student Activities")	Observation of students in the class room	Locally devised checklist for class room observation	Frequency distribution and percentages reporting student time spent on individual activities	Informal contact as feedback becomes available and formal written report at end of Cycle II

FIGURE 2

OPPORTUNITY SCHOOL TIMELINE--CYCLE 1

Activities	Date	Person Responsible
1. Derive a design of the program	January & February 1969	
2. Work up interview schedules for compatibility	March 1969	
3. Administer interview schedules	March 1969	
4. Contact consultant for panel meeting	End March 1969	
5. Prepare materials for panel meeting	End March 1969	
6. Hold panel meeting	April 1969	
7. Analyze panel proceedings	April 1969	
8. Collect and analyze records from program staff to expand process section of design	May 1969	
9. Hold new design meeting to ratify process and settle questions from panel meeting--convey idea that design should be used in orientation of new staff members in fall in preparation for Stage II work	May 1969	
10. Write Cycle I Report	June 1969	
11. Write Annual Report	June 1969	

FIGURE 3

Office of Research
January 1968

TRANSITION ROOM

DIRECTIONS FOR ADMINISTERING CYCLE II OBSERVATION SCHEDULE

Preliminary Directions

Before beginning the actual observation, the observer will record the following information at the top of each page:

1. School
2. Teacher
3. Observer
4. Visitation Number
5. Date (including day of week, month, and day of month)
6. Grade
7. Number of students present

General Information

1. This observation schedule is designed to enable the observer to focus his attention on the teacher's activity and his use of instructional media.

2. Observations will be recorded precisely at 3-minute intervals.

3. Each observation session will normally include six separate observation periods.

4. The exact time (hour and minute) for each observation period should be recorded in the space below the number.

5. The observer will register all pertinent items by recording a single stroke (/) in the appropriate block or blocks.

6. After all the observation periods have been recorded, the total number of strokes should be entered in the "Total" column at the extreme right of the page.

7. It is contemplated that each teacher will be observed on three separate occasions during this cycle. In order to insure a complete description of the activities and instructional media being used in transition rooms, it is important that no two observation sessions for any particular room take place on the same day of the week or at the same time of day.

Activity Categories (Parts I and II)

1. The observer will record each activity with a stroke (/) in the appropriate block or blocks for each 3-minute observation.

2. If a teacher is engaged in more than one activity at the moment of observation, place a mark in every appropriate block.

3. If the teacher's activity involves the whole class, the mark should be made in the appropriate block under Part I (Group Instruction). If he is engaged with a sub-group within the class or is working with an individual student, the mark should be made in the appropriate block under Part II (Individual Instruction.)

Instructional Materials Used (Part III)

1. The recorder will record a stroke in each appropriate block to indicate all materials and equipment being used at the time of observation.

2. If the teacher is using an instructional medium not listed on the observation schedule, briefly indicate the activity and medium on the reverse side of the form.

FIGURE 4 Stage II Instrument

2/68

School_____ Teacher_____ Observer_____

Date_____ Grade_____ No. of Students____ Visit No._____

(day of wk., mo., day of mo.)

Activity Categories — **Observation Periods**

I. Group Instruction (whole class)

Time	1	2	3	4	5	6	Total
1. Lectures							
2. Demonstrates							
3. Asks questions							
4. Reads to class							
5. Explains							
6. Checks pupils' work							
7. Gives answers							
8. Accepts pupils' responses							
9. Rejects pupils' responses							
10. Corrects pupils' responses							
11. Listens to recitation or reading							
12. Listens to pupils' spontaneous conversation							
13. Directs group instructional activities							
14. Directs non-instructional activities							
15. Distributes or collects instructional material							
16. Tests pupils							
17. Praises or rewards pupils' responses or behaviors							
18. Corrects pupils' behavior							
19. Walks around the room							
20. Watches pupils work							
21. Other miscellaneous teacher activities							

II. Individual Instruction (sub-groups or individual)

	1	2	3	4	5	6	Total
1. Lectures							
2. Demonstrates or explains							
3. Asks instructional questions							
4. Asks non-instructional questions							
5. Reads to sub-group							
6. Checks pupil's work							
7. Gives answers							
8. Accepts pupil's responses							
9. Rejects pupil's responses							
10. Corrects pupil's responses							
11. Listens to recitation or reading							
12. Listens to pupil's spontaneous conversation							
13. Directs or suggests instructional activities							
14. Directs non-group instructional activities							
15. Distributes or collects instructional material							
16. Tests pupils							
17. Praises pupil's responses or behavior							
18. Criticizes pupil's responses or behavior							
19. Discusses pupil's progress							
20. Discusses pupil's learning difficulties							
21. Assists pupil with his work							
22. Other miscellaneous teacher activities							

III. Instructional Material Used

	1	2	3	4	5	6	Total
1. Basic readers							
2. Basic social studies text books							
3. Reference books							
4. Other books							
5. Workbooks							
6. Duplicated worksheets							
7. Compositions							
8. Blackboard							
9. Flashcards							
10. Notebooks							
11. Puzzles							
12. Charts							
13. Filmstrips							
14. Filmstrips and records							
15. Phonograph records							
16. Magazines or similar publications							
17. T-Flasher							
18. Instructional Games							
19. Other instructional materials							

5. ESTABLISH INTER-RATER RELIABILITY

If the instrument is to be administered by more than one rater, it will be necessary to establish inter-rater reliability for it. This can be done as part of the testing process by having all raters record the data obtained from the same respondents and then comparing the responses from each item. Of course, if the instrument is significantly modified as a result of field testing, a new measure of reliability will be required. Statistical procedures concerning inter-rater reliability should be discussed with experts in measurement in the Office of Research.

6. ADMINISTER STAGE II INSTRUMENT

The Administrative Assistant will arrange for raters to collect data as soon as the instrument has been modified as the result of field testing and inter-rater reliability has been established. The procedures for administering the instrument will ordinarily be the same as those followed in the field testing period. Frequent reference should be made to the written directions mentioned above. Modifications in administering the instrument must have the approval of the Coordinator of Evaluation.

7. ANALYZE DATA

Data analysis should be initiated as soon as field observations have been completed. The evaluator will recall that the rationale section of the cycle plan includes a statement concerning the analysis contemplated for every area of the design scheduled for observation. At this point it

it should be a simple matter to subject the data to the analytical procedures already planned. The results of the analysis should be reduced to a series of findings, conclusions drawn according to approved research techniques, and preparations made for reporting the findings and conclusions to program staff.

8. WRITE CYCLE REPORT

The cycle report noting the findings and conclusions obtained from the data analysis of Stage II field observations is a brief document which attempts to point out to program staff the observed differences between design requirements and actual practice. All the variables studied should be reported. Where discrepancies are found, alternative ways of correcting them should be discussed. The options, however, should not be presented as recommendations, nor should the evaluator express any preference among them, since changes in design or operation of a program are always the prerogatives of program staff.

As pointed out in the orientation sessions devoted to human relations (See section 3, page 7), application of the Discrepancy Evaluation Model will more often than not lead to the reporting of negative findings. In the interest of providing data to correct deficiencies and spark improvement in a program, these findings will be highlighted in the cycle report. But they should not be exaggerated. Nor should positive findings be minimized, since program staffs have a right to know in what respects their programs are functioning properly.

Cycle reports, while adhering to a standardized approach, can vary to reflect the needs of particular programs and the writing styles of individual evaluators. They should avoid circumlocutions and unnecessarily technical expressions because they are intended for a large audience with varying degrees of sophistication in research concepts and terminology. In any case, a report written in uncluttered English is more likely to produce results than one phrased in esoteric language.

An example of a cycle report dealing with Stage II concerns appears as Appendix A of the present document.

9. DISTRIBUTE CYCLE REPORT

A distribution list for cycle reports should be determined by consulting with the Coordinator of Evaluation and the program manager. In keeping with the principle of frequent feedback to everyone with a legitimate interest in the program, the evaluator should work for the broadest circulation possible for the cycle report. A covering letter which explains the purpose of the report, signed by the Director of Research, should be attached to every copy. This letter may solicit comments and reactions from recipients of the report. A sample letter appears as Appendix B of this document.

APPENDICES

Appendix A

CYCLE II REPORT
KINDERGARTEN PROGRAM

Evaluation of the Kindergarten Program has been limited to obtaining a program design and informal review of that design. Lack of specificity in the design as revised during the 1967-1968 school year made necessary further work in this area in 1968-1969. This design work included a task force meeting of experienced teachers to discuss the functions of the teacher, discussions of the design with kindergarten supervisors, and work on objectives using the courses of study for the kindergarten as a source of information.

In addition, compatibility studies were initiated in 1968-1969. The present report is a summary of those studies.

Compatibility of the Program

No significant conflicts between the objectives of the Kindergarten Program and those of the rest of the school system have become apparent. However, adequacy of materials, supplies, and facilities is questioned by many teachers and some principals.

A questionnaire concerning adequacy of materials, supplies, and facilities was distributed to 30 kindergarten teachers in December of 1968. Twenty-nine teachers returned the questionnaire. Of these, 14 were from non-compensatory schools, and the remaining 15 were from compensatory schools.

Teachers were asked whether they had an adequate supply of materials in each of several categories. The category in which the most "yes" answers were received was that of art supplies. In descending order of frequency of "yes" responses, the answers were as follows:

Category	% Yes Responses
Art supplies	90%
Books and pictures	69%
Toys for dramatic play	62%
Toys for gross motor play	59%
Musical equipment	59%
Measuring tools	41%
Materials for science activities	38%
Toys designed to develop manipulative skills	38%

No significant difference between compensatory and non-compensatory schools with respect to adequacy of any of these supplies appeared ($p=.05$).

Teachers were also asked about the adequacy of facilities. All teachers reported access to sinks with running water, small tables and chairs, lavatory, storage space (often termed inadequate). One teacher reported no access to audio-visual materials, two reported insufficient indoor play space, two reported insufficient display space, seven reported no access to outdoor play space, and nine reported no access to cooking equipment. Audio-visual materials were shared half the

time, and outdoor play space was shared in 9 of the 22 instances in which it was available. Other facilities were occasionally shared, most often the lavatory.

Half the teachers felt that sharing facilities created scheduling or other problems. Eleven of the 15 compensatory school teachers had aides, five of whom were shared with other teachers.

Teachers were given an opportunity to discuss problems of the Kindergarten Program at the end of the questionnaire. Frequent comments were made about the large size of classes and the sharing of classroom space with other programs. Teachers also complained of lack of adequate preparation time. Suggestions for alleviating this problem included introducing an aide into the classroom, even once a week, and use of volunteers.

In January this questionnaire was followed by two other questionnaires, one for teachers who had not answered the first questionnaire and one for elementary school principals. The questionnaire sent to principals was designed to investigate the progression from preprimary through kindergarten to first grade, or from kindergarten to first grade in those schools where there is no Preprimary Program. The sharing of facilities was also investigated.

Twenty-nine of the 30 questionnaires sent out were returned. Results are summarized below (not all principals answered all questions).

		YES	NO
1.	In your opinion, is there a natural progression in curriculum and teaching methods from the Preprimary Program to the Kindergarten Program? *	7	4
	From kindergarten to first grade?	22	7
2.	Was a room intended for kindergarten use built into your school?	27	2
	Does kindergarten occupy that room?	27	0
3.	Is the room kindergarten occupies big enough for present enrollment?	21	8
4.	Does kindergarten share its room with any other program or other school function (lunch room, auditorium, etc.)?	7	21
5.	Is outdoor play space available to kindergarten?	28	1
6.	Must kindergarten share any of the following facilities with other school groups?		
	Audio-visual materials	18	10
	Lavatory	13	15
	Outdoor play space	17	10
	Indoor play equipment	5	21
	If yes, do any of these shared facilities cause scheduling conflicts when they are used?	7	19

No significant difference in distribution of replies between non-compensatory and compensatory schools was determined (p=.05).

Twelve of the principals replying took the opportunity to make comments about the program. Of these, three commented that reading

*This question was not asked of principals in non-compensatory schools.

readiness programs in the kindergarten should be intensified. Ten commented on lack of space, small outdoor play area, or lack of materials. Usually more than one of these problems was mentioned--lack of space most often.

The second questionnaire sent to kindergarten teachers was confined to schools in which there is a Preprimary Program, and dealt chiefly with the effect of the Preprimary Program upon entering kindergarten students. Communication between the teachers was asked about, as was communication between kindergarten and first grade teachers. Twenty-three questionnaires were sent out, and 23 returned. This does not represent one hundred percent response: only one teacher in each school received a questionnaire; however, three principals insisted that both teachers fill it out.

The average size of classes among the responding teachers was 34.5 students, 10.8 or 31.4% of whom were former preprimary students. Almost all of the teachers knew which of their students had attended preprimary. Only one teacher saw no appreciable difference between children who had attended preprimary and children who had not. No negative comments were made, and most of the teachers had had some communication with both preprimary and first grade teachers. Five of the teachers reported criticism from the first grade teacher about the Kindergarten Program.

In summary, shortages of materials, cramped facilities, and problems resulting from the sharing of facilities and large classes exist and are seen by teachers and principals as detrimental to the program. The program as a program, however, is praised by both teachers and principals.

Appendix B

THE BOARD OF PUBLIC EDUCATION

PITTSBURGH, PA. 15213

ADMINISTRATION BUILDING
BELLEFIELD AND FORBES AVENUES

Dear _____(Name of program manager):

In keeping with our policy of providing information on program progress, the Office of Research is issuing the attached Cycle Report to staff members of the Kindergarten Program.

The Cycle Report is the result of research conducted in the current cycle of evaluation. We hope that you and your staff will find it useful in the continued operation of your program.

Sincerely yours,

_____
Director of Research